

AMENDMENTS TO THE CLAIMS

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. (Currently Amended) A method of Edge-Node Interleave Sort for Leaching and Envelop(ENISLE), comprising:

mapping a circuit into a *V-E* plane, comprised of side, to transform a circuit information into said *V-E* plane which contains the information of node and edge information, wherein said *V* indicates nodes that represent components of said circuit and wherein said *E* indicates edges that represents nets of said circuit;

partitioning said *V-E* plane from a side *V* to form two node sets, wherein each node set includes at least one node;

determining whether *V-E* pairs distribution on said *V-E* plane is uniform or not, if said *V-E* pairs distribution is not uniformly distributed, then randomizing said *V-E* pairs on said *V-E* plane, otherwise performing the following steps for sequentially arranging the *V-E* pairs according to a magnitude respective to each said each node or said edge, thereby obtaining min-cut or/and ratio min-cut partitioning;

performing a first sorting step from an edge view based on a first side of said *V-E* plane;

performing a second sorting step from a node view based on a second side of said *V-E* plane;

performing a third sorting from said edge view based on a third side of said *V-E* plane; and

performing a fourth sorting step from said node view based on a fourth side of said *V-E* plane.

2. (Previously Amended) The method of claim 1, wherein said first side refers to a bottom side of said *V-E* plane.

3. (Previously Amended) The method of claim 1, wherein said second side refers to a right side of said *V-E* plane.

4. (Previously Amended) The method of claim 1, wherein said first side refers to a top side of said V-E plane.

5. (Previously Amended) The method of claim 1, wherein said first side refers to a left side of said V-E plane.

6. (Currently Amended) The method of claim 1, further comprising following steps after performing said fourth sorting:

initializing a node set record;

performing a fifth sorting step from said node view based on the second side;

performing a sixth sorting step from said edge view based on said first side/third side;

determining whether each said node set is still interchanged or not, if said node set is no longer interchanged, go back and perform said fifth sorting step, otherwise, perform a seventh sorting step from said node view based on said fourth side;

determining whether each said node set is still interchanged or not, if said node set is still interchanged, then perform said fifth sorting step for achieving an optimal min-cut or ratio min-cut partitioning.

7. (Previously Amended) The method of claim 6, wherein said first side refers to a bottom side of said V-E plane.

8. (Previously Amended) The method of claim 6, wherein said second side refers to a right side of said V-E plane.

9. (Previously Amended) The method of claim 6, wherein said first side refers to a top side of said V-E plane.

10. (Previously Amended) The method of claim 6, wherein said first side refers to a left side of said V-E plane.

11. (Currently Amended) A method for min-cut and/or ratio min-cut partitioning, comprising:

mapping a circuit into a V-E plane, comprised of sides, to transform a circuit information into said V-E plane which contains the information of node and edge information, wherein said V

indicates nodes that represent components of said circuit and wherein said E indicates edges that represents the nets of said circuit;

partitioning said V-E plane from a side V to form two node sets, wherein each node set includes at least one node;

performing the following steps for sequentially arranging of the V-E pairs according to a magnitude respective to each said node or said edge, thereby obtaining min-cut or/and ratio min-cut partitioning;

performing a first sorting step from an edge view based on a first side of said V-E plane;

performing a second sorting step from a node view based on a second side of said V-E plane;

performing a third sorting from said edge view based on a third side of said V-E plane; and

performing a fourth sorting step from said node view based on a fourth side of said V-E plane.

12. (Previously Amended) The method of claim 11, further comprising determining whether said V-E pairs distribution on said V-E plane is uniform or not, if said V-E pairs distribution is not uniformly distributed, then randomizing said V-E pairs on said V-E plane.

13. (Previously Amended) The method of claim 11, wherein said first side refers to a bottom side of said V-E plane.

14. (Previously Amended) The method of claim 11, wherein said second side refers to a right side of said V-E plane.

15. (Previously Amended) The method of claim 11, wherein said first side refers to a top side of said V-E plane.

16. (Previously Amended) The method of claim 11, wherein said first side refers to a left side of said V-E plane.

17. (Currently Amended) A method for min-cut and/or ratio min-cut partitioning, comprising:

mapping a circuit into a $V-E$ plane, comprised of sides, to transform a circuit information into said $V-E$ plane which contains the information of node and edge information, wherein said V indicates nodes that represent components of said circuit and wherein said E indicates edges that represents the nets of said circuit;

partitioning said $V-E$ plane from a side V to form two node sets, wherein each node set includes at least one node;

determining whether $V-E$ pairs distribution on said $V-E$ plane is uniform or not, if said $V-E$ pairs distribution is not uniformly distribute, then randomizing said $V-E$ pairs on said $V-E$ plane, otherwise performing the following steps for sequentially arranging of the $V-E$ pairs according to a magnitude respective to each said node or said edge, thereby obtaining min-cut or/and ratio min-cut partitioning;

performing a first sorting step from an edge view based on a first side of said $V-E$ plane;

performing a second sorting step from an node view based on a second side of said $V-E$ plane;

performing a third sorting from said edge view based on a third side of said $V-E$ plane;

performing a fourth sorting step from said node view based on a fourth side of said $V-E$ plane;

initializing a node set ~~node sets~~-record;

starting a loop;

performing a fifth sorting step from said node view based on the second side and then recording said two node sets;

performing a sixth sorting step from said edge view based on said first side/third side and then recording said two node sets;

determining whether each said node set is still interchanged or not, if said ~~each~~-node set is no longer interchanged then go back to perform said fifth sorting step, otherwise, perform a seventh sorting step from said node view based on said fourth side;

determining whether each said node set is still interchanged or not, if said node set is still interchanged, then ~~performing said fifth sorting step~~ performing said fifth sorting step coming back to the start of the loop, for achieving an optimal min-cut or ratio min-cut partitioning.

18. (Withdrawn) A method for display data compression techniques by different light intensity and/or different patterns on a monochrome viewpoint, comprising:

displaying (V, E) pairs on an initial V-E plane shown on a monitor screen to observe the said initial (V, E) pairs distributed condition, wherein said V indicates nodes that represent components of said circuit and wherein said E indicates edges that represents the nets of said circuits;

setting L nodes x W edges (V, E) pairs rectangle region to compose a block, wherein said L and W are integers;

defining the more (V, E) pairs in said block to be displayed by the relatively high light intensity to the less (V, E) pairs in said block; and

watching relatively large size of V-E plane or a whole V-E plane to said initial (V, E) plane on said monitor screen, wherein said exact (V, E) pairs positions still be held, thereby zooming in said V-E plane to watch detail local (V, E) pairs distributed condition, or zooming out to watch global (V, E) pairs distributed condition on said monitor screen.

19. (Withdrawn) A method for display data compression techniques by different light intensity and/or different patterns on a monochrome viewpoint, comprising:

displaying (V, E) pairs on an initial V-E plane shown on a monitor screen to observe the said initial (V, E) pairs distributed condition, wherein said V indicates nodes that represent components of said circuit and wherein said E indicates edges that represents the nets of said circuits;

setting L nodes x W edges (V, E) pairs rectangle region to compose a block, wherein said L and W are integers;

defining the less (V, E) pairs in said block to be displayed by the relatively high light intensity to the more (V E) pairs in said block; and

watching relatively large size of V-E plane or a whole V-E plane to said initial (V, E) plane on said monitor screen, wherein said exact (V, E) pairs positions still be held, thereby zooming in said V-E plane to watch detail local (V, E) pairs distributed condition, or zooming out to watch global (V, E) pairs distributed condition on said monitor screen.

20. (Withdrawn) A method for display data compression techniques by different color and/or different patterns on a monochrome viewpoint, comprising:

displaying (V, E) pairs on an initial V-E plane shown on a monitor screen to observe the said initial (V, E) pairs distributed condition, wherein said V indicates nodes that represent components of said circuit and wherein said E indicates edges that represents the nets of said circuits;

setting L nodes x W edges (V, E) pairs rectangle region to compose a block, wherein said L and W are integers;

defining the more (V, E) pairs in said block to be displayed by the relatively bright color to the less (V, E) pairs in said block; and

watching relatively large size of V-E plane or a whole V-E plane to said initial (V, E) plane on said monitor screen., wherein said exact (V, E) pairs positions still be held, thereby zooming in said V-E plane to watch detail local (V, E) pairs distributed condition, or zooming out to watch global (V, E) pairs distributed condition on said monitor screen.

21. (Withdrawn) A method for display data compression techniques by different color and/or different patterns on a monochrome viewpoint, comprising:

displaying (V E) pairs on an initial V-E plane shown on a monitor screen to observe the said initial (V, E) pairs distributed condition, wherein said V indicates nodes that represent components of said circuit and wherein said E indicates edges that represents the nets of said circuits;

setting L nodes x W edges (V, E) pairs rectangle region to compose a block, wherein said L and W are integers;

defining the more (V, E) pairs in said block to be displayed by the relatively bright color to the less (V, E) pairs in said block; and

watching relatively large size of V-E plane or a whole V-E plane to said initial (V, E) plane on said monitor screen, wherein said exact (V, E) pairs positions still be held, thereby zooming in said V-E plane to watch detail local (V, E) pairs distributed condition, or zooming out to watch global (V, E) pairs distributed condition on said monitor screen.